USDA Forest Service **HAZARD TREE EVALUATION** Southwestern Region[1]

Location: _____ Page: ____ of _____

Date: _____ Inspected by: _____

(Each column represents one tree)

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Unit number (e.g. campsite #) | | | | | | | |
| Tree number | | | | | | | |
| Tree species | | | | | | | |
| DBH | | | | | | | |
| Tree azimuth (degrees), | | | | | | | |
| Tree distance (feet), & refer. point (codes on back) | | | | | | | |
| **Tar-gets** | **2** | People, Permanent Structures, Vehicles | | | | | |
| | **1** | Major Trails and Roads | | | | | |
| **Defects** | **3** | Wounds/cankers > 50% of circumference | | | | | |
| | | Unnatural lean | | | | | |
| | | Root disease | | | | | |
| | | Exposed roots with decay, >50% of roots | | | | | |
| | | Crack severe or associated with fork | | | | | |
| | | Dead tree | | | | | |
| | | Sound shell < 33% radius** | | | | | |
| | | Top/Branch > 6″ in diameter | | | | | |
| | **2** | Wounds/cankers 33-50% of circum. | | | | | |
| | | Exposed roots with decay, <50% of roots | | | | | |
| | | Cavities in branch, bole, base | | | | | |
| | | Codominant stems with included bark | | | | | |
| | | Dead Top/Branch 3-6″ in diameter | | | | | |
| | | Sound shell 33-60% radius** | | | | | |
| | | Fruiting of decay fungus or punk knots | | | | | |
| | **1** | Wounds/cankers 10-33% of circum. | | | | | |
| | | Lightning scar, small crack | | | | | |
| | | Large broom, dead top/branch <3″ diam. | | | | | |
| | | Codominant stems with no included bark | | | | | |
| | | Exposed or severed roots, no decay | | | | | |
| | | Natural lean | | | | | |
| | | | | | | | |
| | **0** | No visible defect; minor wounds, pitch/flux | | | | | |
| | | **Hazard Rating** (Target x Worst Defect) | | | | | |
| ** | | Drilling (if done) – inches of sound wood | | | | | |
| **Notes:** GPS point identifier | | | | | | | |

[1] Adapted from Rocky Mountain Region Forest Health Protection

# Use of the HAZARD TREE EVALUATION Form

Defective trees are potential hazards to people and property in recreation areas. Indicators of defects are used to identify trees that may fail. Systematic, annual, documented inspections of trees in recreation sites and corrective action are recommended to reduce hazards to the public. (D.W. Johnson. 1981. Tree hazards, Recognition and Reduction in Recreation Sites. Technical Report R2-1. USDA Forest Service, Forest Pest Management Denver, CO.)

The HAZARD TREE EVALUATION form is more than a hazard rating record. It is a record of the overall structural condition of a tree that can be used to determine progression of defects over time and to document the frequency of certain defects. All defects observed should be checked even though only the highest values are used in the hazard rating.

Forms cannot take all situations into account. Trained and experienced evaluation crews may need to exercise judgment in some cases. However, if you need to regularly override the form, need training, or have any questions about the process or tree hazard, please contact Forest Health Management staff:
**Flagstaff Zone Office**: (928) 556-2073 **New Mexico Zone Office**: (505) 842-3286

1. Maps of the campgrounds are helpful in planning and performing hazard tree surveys. All recreation structures should be drawn on the maps. These maps used/created during the survey should be included with the HAZARD TREE EVALUATION forms to indicate which specific recreation sites were surveyed.
2. Tree locations are accurately described on the HAZARD TREE EVALUATION form using GPS reference points (attach spreadsheet with datum and point information) or select reference points and record azimuths and distances to all defective trees on the form. Choose reference points that are permanent structures and unlikely to be moved. For large structures, use a more specific reference point such as the most northern/northwestern edge of the structure. Good **reference points to use are:** permanent picnic tables (codes as "T"), fire pits or grills ("F"), campsite number sign ("#"), latrines ("L"), signs ("S"), benches ("B"), water spigots ("W"), and garbage containers ("G").
3. Potential hazard of a tree is determined by Target and Defect:

| | Definition | Values |
|---|---|---|
| **Target** | Target rating is a combination of the likelihood that a potential target will be hit (assuming the tree fails) and the value of the target. | Potential targets are assigned values of 1 or 2. |
| **Defect** | A defect rating is an estimation of the likelihood that a tree will fail based on available indicators. | Defects are assigned values of 0 – 3. |

4. More than one type of potential target or defect may be identified and checked for any tree.
5. Calculate hazard rating by multiplying target value plus the value of the worst defect.

## Possible Hazard Ratings:

**Target x Worst Defect = Hazard Rating**

**6 = Highest, 4, 3, 2, 1, and 0 = lowest**